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Regulations and Non-Regulatory Revisions to State Implementation Plan: South Carolina

Atlantic Environmental Associates, Inc.
Waltham, MA

Prepared for

Environmental Protection Agency
Research Triangle Park, NC

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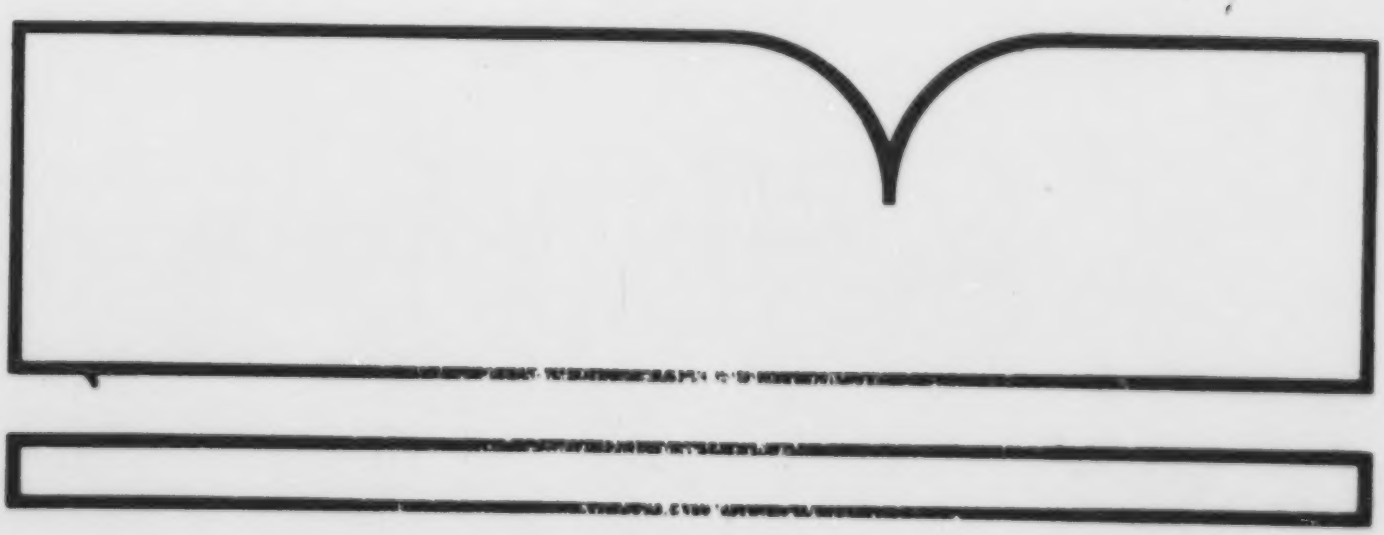

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EPA-450/2-81-060
July 1981

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Air

EPA

Regulations and Non-Regulatory Revisions to State Implementation Plan: South Carolina

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EPA-450/2-81-060

Regulations and Non-Regulatory Revisions to State Implementation Plan: South Carolina

By

Atlantic Environmental Associates, Inc.
59 Vernon Street
Waltham, MA 02154

Contract No. 68-02-3565

EPA Project Officer: Willis P. Beal

Prepared for

U.S ENVIRONMENTAL PROTECTION AGENCY
Control Programs Development Division
Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711

July 1981

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16. ABSTRACT

This document has been produced in compliance with Section 110(h) of the Clean Air Act, as amended in 1977, which mandates periodic publication of State Implementation Plan (SIP) requirements. The first section of the document comprises the Federally approved SIP regulations. It consists of the EPA-approved State and/or local air pollution control regulations cited by reference in the Federal Register; regulations promulgated as of August 1, 1981 have been included in this document.

The present compilation constitutes an update of a previous documentation of regulations as of July 1, 1979. State and/or local air quality regulations which have not been Federally approved as of August 1, 1981, are not included. However, any omissions of regulations from this document in no way affects the ability of the respective Federal, State, or local agencies to enforce such regulations. A summary sheet of the regulatory revisions is provided to give a quick historical assessment of the changes.

The second part of the document contains the text of non-regulatory SIP revisions approved by EPA up to August 1, 1981, excluding notices or certifications of public hearings and technical support data. A complete tabulation of these revisions is also provided.

17. KEY WORDS AND DOCUMENT ANALYSIS

a. DESCRIPTORS	b. IDENTIFIERS/OPEN ENDED TERMS	c. COSATI Field/Group
Air Pollution State Regulations State Implementation Plans		

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EPA Form 2220-1 (Rev. 4-77) PREVIOUS EDITION IS OBSOLETE

This report has been reviewed by the Control Programs Development Division of the Office of Air Quality Planning and Standards, EPA, and approved for publication. Mention of trade names or commercial products is not intended to constitute endorsement or recommendation for use. Copies of the entire document are available for inspection and copying at EPA Headquarters (401 M Street SW, Washington, DC 20460), EPA's Office of Air Quality Planning and Standards (Room 826, 411 West Chapel Hill Street, Durham, NC 27701), and the appropriate EPA Regional Offices. Documents containing only the regulatory portions of each State Implementation Plan may be ordered for a nominal fee from the National Technical Information Services, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161.

PREFACE

This document has been produced in compliance with Section 110(h) of the Clean Air Act, as amended in 1977, which mandates periodic publication of State Implementation Plan (SIP) requirements. The first section of the document comprises the Federally approved SIP regulations. It consists of the EPA approved State and/or local air pollution control regulations cited by reference in the Federal Register; all regulations Federally promulgated as of August 1, 1981 have been included.

The present compilation constitutes an update of a previous documentation of regulations as of July 1, 1979.* State and/or local air quality regulations which have not been Federally approved as of August 1, 1981 are not included. However, any omissions of regulations from this document in no way affects the ability of the respective Federal, State or local agencies to enforce such regulations.

This document is not intended to provide a tool for determining the enforceability of any given regulation. Rather, it is intended to provide a comprehensive compilation of those regulations which are incorporated by reference into Title 40, Part 52, of the Code of Federal Regulations (CFR). The exclusion of a Federally approved regulation from this document does not diminish the enforceability of the regulation. Similarly, the inclusion of a given regulation in this document does not, in itself, render the regulation enforceable by either the State or EPA.

The regulations have been organized in this document according to the official State/local agency format. However, since State air quality regulations vary widely in their organization, content, and language, a standardized subject index has been added. The index listings consist of both pollutant and activity oriented categories to facilitate usage. For example, regulations which apply to copper smelters may be found under sulfur compounds (50.2), particulate matter process weight (50.1.1), or copper smelters (51.15). Federal regulations pertaining to a given State are not included herein but can be found under Title 40 Code of Federal Regulations, Part 52.

Additionally, a summary sheet of the regulatory revisions is included to provide a quick historical assessment of the changes. These summary sheets contain the date of submittal to EPA of each revision and the Federal Register publication date on which the revision was approved by EPA. A brief description of the regulation which was submitted is also included.

In accordance with the Act, the second part of the document contains non-regulatory SIP revisions approved by EPA up to August 1, 1981. All approved non-regulatory revisions listed under Identification of Plan in the CFR are included except notices or certifications of public hearings, and technical support data. Non-regulatory submittals which have only received EPA approval on selected elements are included in their entirety with an accompanying indication of the status of Federal actions on the non-approved elements. The non-regulatory revisions have been organized in this document

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* Regulations and Non-Regulatory Revisions to State Implementation Plan: South Carolina, EPA-450/2-80-047, prepared under Contract 68-02-3388, July 31, 1980.

according to the date of publication of EPA approval in the Federal Register. For historical completeness, a complete tabulation of these revisions is provided at the beginning of this second section.

SUMMARY OF
EPA-APPROVED REGULATORY REVISIONS TO STATE OF SOUTH CAROLINA SIP
BETWEEN JULY 1, 1979 AND JULY 31, 1981

Publication of Approval	Submittal Date	Page	Document Description
01/29/80	12/20/78	45FR6575	South Carolina air quality implementation plan as revised in December of 1978.
07/07/80	04/24/80	45FR45581	Variance granted to Bowater Carolina Corporation until April 1, 1981, for increased particulate emissions and opacity limits, and revised regulation 61.62.1(B)(II).
07/08/81	09/10/80	46FR35259	Revision to Regulation 62.3, Emergency Episode Pollutant concentration levels changed for ozone. The term ozone replaces the term oxidants. Levels for ozone emission now apply throughout the state, not just the Metropolitan Charlotte Control Region.

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AIR POLLUTION CONTROL REGULATIONS

REGULATION NO. 62.1

DEFINITIONS AND PERMIT REQUIREMENTS

SECTION I - DEFINITIONS

The following words and phrases when used in the Regulations and Standards shall for the purpose of these regulations have the meanings respectively ascribed to them in this section, unless a different meaning is clearly indicated. This section augments Section 1 of the South Carolina Pollution Control Act.

1. Acid Mist - Mist or droplets of sulfuric or other strong acids.

2. Add - Additions to a process which will increase size, scope or emissions from such process.

3. Alter - Alter means modification or change in a process or processes which would affect emissions to the atmosphere.

4. Ambient Air Quality Standards - That standard for the quality of ambient air at or beyond a property line on which a source of pollution is emitting.

5. Application - Means a form provided by the Department which is prescribed to provide the information required to grant approval to construct and operate a source or an incinerator; or to report an existing incinerator.

6. Board - Board means Board of Health and Environmental Control.

7. Commissioner - Commissioner means the Commissioner of the Department of Health and Environmental Control.

8. Department - Department means the Department of Health and Environmental Control.

9. Environmental Location - Location of human, plant, or animal life or property.

10. Fuel Burning Operation - Use of furnace, boiler, device or mechanism used principally but not exclusively, to burn any fuel for the purpose of indirect heating in which the material being heated is not contacted by and adds no substance to the products of combustion.

11. Fugitive Dust - Solid airborne particulate matter emitted at or near ground level from any source other than a flue.

12. Garbage - Animal and vegetable waste resulting from the handling, preparation, cooking and serving of foods.

13. Hazardous Air Pollutant - Those pollutants which are the subject of National Emission Standards for Hazardous Air Pollutants promulgated by the United States Environmental Protection Agency by publication in the Federal Register.

14. Incinerator - Means an engineered apparatus and all appurtenances thereto, designed to reduce combustible solid, semi-solid, liquid, or gaseous waste by high temperature burning.

15. Mass Emission Rate - The weight discharged per unit of time.

16. Opacity - The degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

17. Open Burning - Any fire or smoke-producing process which is not conducted in any boiler plant, furnace, high-temperature processing unit, incinerator or flare, or in any other such equipment primarily designed for the combustion of fuel or waste material.

18. Particulate Matter - Any materials, except uncombined water, that exists in a finely divided form as a liquid or solid at standard conditions.

19. Process Industry - Any source engaged in the manufacture, processing, handling, treatment, forming, storing or any other action upon materials except fuel-burning operations.

20. Process Weight - The total weight of all materials introduced into a source operation, including air and water where these materials become an integral part of the product, and solids used as fuels but excluding liquids and gases used solely as fuels.

21. Process Weight Rate - A rate established as follows:

(a) For continuous or long-run steady-state source operations, the total process weight for the entire period of continuous operation or for a typical portion thereof, divided by the number of hours of such period or portion thereof.

(b) For cyclical or batch unit operations, or unit processes, the total process weight for a period that covers a complete operation or an integral number of cycles, divided by the hours of actual process operation during such a period.

Where the nature of any process or operation or the design of any equipment is such as to permit more than one interpretation of this definition, the interpretation that results in the minimum value for allowable emission shall apply.

22. Refuse - Garbage, rubbish and/or trade waste.

23. Ringelmann Chart - The chart published and described in the U.S. Bureau of Mines Information Circular 7718, on which is illustrated graduated shades of gray to black for use in estimating the light obscuring capacity of smoke.

24. Rubbish - Solid wastes from residences and dwellings, commercial establishments, and institutions.

25. Salvage Operations - Any operation of a business, trade, or industry engaged in whole or in part in salvaging or reclaiming any product or material including, but not limited to, metals, chemicals, shipping containers, drums or automobiles.

26. Smoke - Small gas-borne and airborne particles arising from a process of combustion in sufficient number to be observable by a person of normal vision under normal conditions.

27. Solid Fuel - A fuel which is fired as a solid such as coal, lignite and wood.

28. Stack - Any flue, conduit, duct, chimney, or opening arranged to conduct an effluent into the open air.

29. Stack Height - The vertical distance measured in feet between the point of discharge from the stack or chimney into the outdoor atmosphere and the elevation of the land thereunder.

30. Standard Conditions - 760 millimeters of mercury at 25° Centigrade.

31. Trade Waste - All solid, liquid or gaseous material or rubbish resulting from construction, building operations, or the prosecution of any business, trade or industry including, but not limited to, plastic products, cartons, paint, grease, oil and other petroleum products, chemicals and cinders.

SECTION II - PERMIT REQUIREMENTS

A. Construction Permit

Any person who plans to construct, alter or add to a source of air contaminants, including the installation of any device for the control of air contaminant discharges, shall first obtain a construction permit from the Department. The Department may grant permission to proceed with minor alterations or additions without issuance of a permit when the Department determines that the alteration or addition will not affect the quantity or character of the source emission.

B. Operating Permit *

Upon request, the Department may authorize the use of alternative fuels which will result in levels minimally in excess of emission standards for fuel burning operations, for a limited period of time. Factors to be considered by the Department, may include but not be limited to; technological, economics, fuel availability and existing air quality. No such permit shall be issued for operations which will result in levels in excess of any national or state ambient air quality standard. This permit will be granted pending the installation of control equipment or modification of existing source to permit compliance with existing standards. The duration of this special permit shall be stipulated on the operating permit for the facility and shall not become effective until approved by the U.S. Environmental Protection Agency revision of the South Carolina Air Quality Implementation Plan.

* A variance has been granted to Bowater Carolina Corp. until April 1, 1981 for increased particulate emissions (up to 0.8 lbs. particulate emissions per billion BTUs of fuel) and opacity limits.

C. Permit Application

1. Construction permit application shall be prepared and submitted by a professional engineer registered to practice in the State of South Carolina and shall provide, as a minimum, the following information:

   a. The name and location of the facility and its planned operating schedules:

   b. Sufficient description, including physical and chemical prop-properties, of materials and processes necessary for the Department to determine actual and potential emissions;

   c Identification of all emission points;

   d. A description, including physical and chemical properties of all emissions;

   e. A complete description including engineering design and operating characteristics of any air pollution control device or system that is to be installed; and

   f. Other information as may be necessary for proper evaluation of the proposed source as determined by the Department.

2. Operating permit applications shall be submitted to the Department no later than fifteen (15) days prior to placing any new, increased or altered source into operation and no later than sixty (60) days prior to the expiration date for a source already possessing a valid operating permit.

D. Special Permit Conditions

All permits shall contain, in addition to such special conditions as the Department finds appropriate, the following standard conditions:

1. No applicable law, regulations or standard will be contravened;

2. All oficial correspondence, plans, permit application forms and written statements are an integral part of the permit; and

3. Any malfunction of air pollution control equipment or system, process upset or other equipment failure which results in greater discharges of air containmants than were described for normal operation in the permit application shall be reported to the Dapartment within twenty-four hours after the beginning of the occurrence and a written report submitted to the Department within 30 days. The written report shall include, as a minimum, the following:

   a. The identity of the stack and/or other emission point where the excess emissions occurred;

   b. The magnitude of the excess emissions expressed in the units of the applicable emission limitation and the operating data and calculations used in determining the magnitude of the excess emmissions;

c. The time and duration of the excess emissions;

d. The identity of the equipment causing the excess emissions;

e. The nature and cause of such excess emissions;

f. The steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of such malfunction;

g. The steps taken to limit the excess emissions; and

h. Documentation that the air pollution control equipment, process equipment, or processes were at all times maintained and operated, to the maximum extent practicable, in a manner consistent with good practice for minimizing emissions.

E. Exemptions

1. No permits shall be required for the following sources constructed prior to February 11, 1971:

a. Natural gas boilers;

b. Oil fired boilers of 50,000,000 BTU/HR rated capacity or smaller; and

c. Coal fired boilers of 20,000,000 BTU/HR rated capacity or smaller.

2. No permits shall be required for the following sources:

a. Boilers and space heating systems of less than 1,500,000 BTU/HR rated capacity;

b. Comfort air conditioning or ventilation systems;

c. Motor vehicles;

d. Laboratory hoods;

e. Emergency power generators of less than 150 KW rated capacity; and

f. Sources emitting only steam, air, nitrogen, oxygen, carbon dioxide, or any physical combination of these. When such sources are found to be in violation of the visible emission standards, the Department may require operating permits to assure compliance with the standards.

3. Package-type incinerators of 750 pounds per hour rated capacity or smaller which burn types 0 and 1 wastes as defined by the Incinerator Institute of America and package-type boilers of 100,000,000 BTU/HR rated capacity or smaller which burn natural gas or oil as fuel are exempt from the requirement that the construction permit applications be prepared and submitted by a registered professional engineer provided the proposed unit is identical to a proto-type model which has been previously designed or otherwise certified by a professional engineer.

REGULATION NO. 62.2

PROHIBITION OF OPEN BURNING

Open burning may be conducted in certain situations if no undesirable levels are or will be created. The authority to conduct open burning under this Regulation does not exempt or excuse the person responsible for the burning from the consequences of or the damages or injuries resulting from the burning and does not exempt or excuse anyone from complying with other applicable laws and with ordinances, regulations, and orders of governmental entities having jurisdiction, even though the burning is otherwise conducted in compliance with this Regulation. The Department reserves the right to impose other or different restrictions and exemptions on open burning in addition to those enumerated below, whenever in the judgement of the Department such is necessary to realize the purpose of this Regulation. Open burning is prohibited except as provided below:

A. Open burning of leaves, tree branches or yard trimmings originating on the premises of private residences or dwellings of four families or less, and burned on those premises.

B. Open burning in connection with the preparation of food for immediate consumption.

C. Campfires and fires used solely for recreational purposes or for ceremonial occasions.

D. Fires purposely set to forest lands for specific management practices in accordance with guidelines acceptable to the Department. Such practices shall include:

1. Prescribed burning under existing standards for various management objectives and

2. Site preparation burning for purposes of clearing an area for regeneration.

E. Fires purposely set for agricultural control of diseases, weeds, pests, and for other specific agricultural purposes in accordance with practices acceptable to the Department of Health and Environmental Control.

F. Open burning of trees, brush, grass and other vegetable matter for game management purposes in accordance with practices acceptable to the Department of Health and Environmental Control.

G. Open burning in other than predominantly residential area for the purpose of land clearing or right-of-way maintenance. This will be exempt only if the following conditions are met:

1. Prevailing winds at the time of the burning are away from any city or town, the ambient air of which may be significantly affected by smoke from the burning;

2. The location of the burning is at least one thousand (1,000) feet from all residential, commercial and industrial facilities other than a dwelling or structure located on the property on which the burning is conducted;

3. The amount of dirt on the material being burned is minimized;

4. Heavy oils, asphaltic materials, items containing natural or synthetic rubber, or any materials other than plant growth which produces smoke in excess of forty (40) percent opacity are not a part of the material burned;

5. The initial burning may be commenced only between the hours of 9:00 a.m. and 3:00 p.m.; no combustible material is added to the fire between 3:00 p.m. of one day and 9:00 a.m. the following day;

6. No more than one pile 60' x 60' or equivalent will be burned within a six-acre area at one time;

7. In the case of land clearing, all salvageable timber and pulpwood must be removed; and

8. A written report or warning to a person of a violation at one site shall be considered adequate notice of the Regulation and subsequent observed violations at the same or different site will result in immediate appropriate legal action by the Board.

H. Fires set for the purposes of training public fire-fighting personnel when authorized by the appropriate governmental entity, and fires set by a private industry as a part of an organized program of drills for the training of industrial fire-fighting personnel. These will be exempt only if the drills are solely for the purpose of fire-fighting training and the duration of the burning held to the minimum required for such purposes.

I. Open burning of rubbish and garbage on the premises of and originating from private residences or dwellings of four families or less where services for the disposal of such materials are not available; and open burning on the property where it occurs of trade waste from building and construction operations will be exempt only if the following conditions are met:

1. The location of the burning is at least five hundred (500) feet from any dwelling located in a predominantly residential area other than a dwelling or structure located on the property on which the burning is conducted;

2. Heavy oils, asphaltic materials, items containing natural or synthetic rubber, or any other trade waste which produce amounts of smoke in excess of forty (40) percent opacity are not burned; and

3. The initial burning is commenced only between the hours of 9:00 a.m. and 3:00 p.m.; no additional fuel shall be added before 9:00 a.m. of the following day.

J. Open burning, in remote or specified areas:

1. Of such trade waste as constitutes rubbish as defined in this Regulation provided smoke in excess of forty (40) percent opacity is not emitted except for a reasonable period to get the fire started, and the burning is conducted in accordance with Paragraph G of this regulation.

2. Of highly explosive or other dangerous material for which there is no other feasible method of disposal.

3. For non-recurring unusual circumstances.

4. For experimental burning for purposes of data gathering and research.

However, a written permit for these types of burning (in sub-paragraph J above) must be obtained in advance from the Department.

REGULATION NO. 62.3

AIR POLLUTION EPISODES

SECTION I - EPISODE CRITERIA

Conditions justifying the proclamation of any stage of an air pollution episode shall be deemed to exist whenever the Commissioner determines that the accumulation of air pollutants in any place is attaining or has attained levels which could, if such levels are sustained or exceeded, lead to substantial threat to the health of persons. The appropriate episode stage will be declared on a regional basis, as dictated by air quality monitoring. Adverse air quality need not be regionwide to trigger control actions; the appropriate episode stage will be declared for an entire Air Quality Control Region when any monitoring site within the region records ambient air quality in excess of that designated in the criteria. In making this determination, the Commissioner will be guided by the criteria listed below:

1. FORECAST - This level will normally be activated when an Air Stagnation Advisory (ASA) is issued for any part of South Carolina by the Columbia Forecast Office of the National Weather Service. If continuous air monitoring equipment indicates an upward trend in pollutant concentrations, the Commissioner may request that the National Weather Service issue an ASA, even though meteorological factors do not appear critical. In the absence of an ASA, the Commissioner may, at his discretion, declare this level when it is in the best interest of public health and welfare.

2. WATCH - This level will be activated when continuous air quality monitoring indicates that one of the following pollutant concentrations has been reached:

   SO_2 - 400 ug/m^3 (0.15 p.p.m.), 24-hour average;
   Particulate - 375 ug/m^3, 24-hour average;
   SO_2 and particulate combined - Product of SO_2 ug/m^3, 24-hour average, and particulate ug/m^3, 24-hour average equal to 49 x 10^3;
   O_3 (Ozone) - 400 ug/m^3 (0.2 p.p.m.), 1-hour average;

   and meteorological conditions are such that the pollutant concentrations can be expected to remain at the above levels for twelve (12) hours or more, or increase, or in the case of , the situation is likely to recur within the next 24 hours unless control actions are taken.

3. ALERT - This level indicates that air quality is continuing to deteriorate and that additional control actions are necessary. An alert will be declared when monitoring indicates that one of the following pollutant concentrations has been reached:

   SO_2 - 800 ug/m^3 (0.3 p.p.m.), 24-hour average;
   Particulate - 500 ug/m^3, 24-hour average;
   SO_2 and particulate combined - product of SO_2 ug/m^3, 24-hour average and particulate ug/m^3, 24-hour average equal to 229 x 10^3;
   O_3 (Ozone) - 800 ug/m^3 (0.4 p.p.m.), 1-hour average;

and meteorological conditions are such that pollutant concentrations can be expected to remain at the above levels for twelve (12) hours or more, or increase, or in the case of ozone , the situation is likely to recur within the next 24 hours unless control actions are taken.

4. EMERGENCY - The primary objective of this plan is to prevent this level from ever being reached; however, should this level be reached the most stringent control actions are necessary. An emergency will be declared when monitoring indicates that one of the following pollutant concentrations has been reached:

   SO_2 - 1600 ug/m^3 (0.6 p.p.m.), 24-hour average;
   Particulate - 750 ug/m^3, 24-hour average;
   SO_2 and particulate combined - product of SO_2 ug/m^3, 24-hour average and particulate ug/m^3, 24-hour average equal to 425×10^3;
   O_3 (Ozone) - 1000 ug/m^3 (0.5 p.p.m.), 1-hour average

   and meteorological conditions are such that this condition can be expected to continue for twelve (12) hours or more, or increase, or in the case of ozone , the situation is likely to recur within the next 24 hours unless control actions are taken.

5. TERMINATION - Once delcared, any level reached by application of these criteria will remain in effect until the criteria for that level are no longer met. At such time, the next lower level will be assumed.

SECTION II - EMISSION REDUCTION REQUIREMENTS

Persons responsible for the operation of a source of air pollutants as listed in Tables 1, 2 and 3 below are required to plan for and may be required to implement emission reduction as indicated.

TABLE 1 - EMISSION REDUCTION PLANS
WATCH LEVEL

PART A. GENERAL

When a Watch Level is declared, the following voluntary actions will be requested:

1. There should be no open burning by any persons of tree waste, vegetation, refuse, or debris in any form.

2. The use of incinerators for the disposal of any form of solid waste should be limited to the hours between 12 noon and 4 p.m.

3. Persons operating fuel-burning equipment which requires boiler lancing or soot blowing should perform such operations between the hours of 12 noon and 4 p.m.

4. Persons operating motor vehicles should eliminate all unnecessary operations.

PART B. SOURCE CURTAILMENT

Persons responsible for the operation of a source of air pollutants listed below shall be advised of existing conditions and be advised to review their emission reduction plans:

1. Coal or oil-fired electric power generating facilities.

2. Coal or oil-fired process steam generating facilities.

3. Manufacturing industries of the following classifications:

Primary Metals Industry	Mineral Processing Industries
Petroleum Refining Operations	Paper and Allied Products
Chemical Industries	Grain Industry

TABLE 2 - EMISSION REDUCTION PLANS
ALERT LEVEL

PART A. GENERAL

Upon declaration of an Alert Level the following will apply:

1. There shall be no open burning by any persons of tree waste, vegetation, refuse, or debris in any form.

2. The use of incinerators for the disposal of any form of solid waste or liquid waste shall be prohibited.

3. Persons operating fuel-burning equipment which requires boiler lancing or soot blowing shall perform such operations only between the hours of 12 noon and 4 p.m.

4. Persons operating motor vehicles are requested to reduce operations by the use of car pools and increased use of public transportation and elimination of unnecessary operation.

PART B. SOURCE CURTAILMENT

Any person responsible for the operation of a source of air pollutants listed below shall take all required control actions for this Alert Level to include the following:

1. Coal or oil-fired electric power generating facilities:

   a. Maximum reduction by utilization of fuels having lowest ash and sulfur content.

   b. Maximum utilization of mid-day (12 noon to 4 p.m.) atmospheric turbulence for boiler lancing and soot blowing.

   c. Maximum reduction by diverting electric power generation to facilities outside of Alert Area.

2. Coal and Oil-fired process steam generating facilities:

   a. Maximum reduction by utilization of fuels having the lowest available ash and sulfur content.

   b. Maximum utilization of mid-day (12 noon to 4 p.m.) atmospheric turbulence for boiler lancing and soot blowing.

   c. Making ready for use a plan of action to be taken if an emergency develops.

3. Manufacturing industries including petroleum refining, chemical, primary metals, glass, paper and allied products which require considerable lead time for shut-down:

   a. Maximum reduction of air contaminants from manufacturing operations by, if necessary, assuming reasonable economic hardships by postponing production and allied operations.

   b. Maximum reduction by deferring trade waste disposal operations which emit solid particles, gases, vapors or any malodorous substances.

   c. Maximum reduction of heat load demands for processing.

   d. Maximum utilization of mid-day (12 noon to 4 p.m.) atmospheric turbulence for boiler lancing or soot blowing.

4. Manufacturing industries including primary metals, chemical, mineral processing and grain which require relatively short lead times for shut-down:

   a. Elimination of air pollutants from manufacturing operations by ceasing, curtailing, postponing or deferring production and allied operations to the extent possible without causing injury to persons or damage to equipment.

   b. Elimination of air pollutants from trade waste disposal processes which emit solid particles, gases, vapors or malodorous substances.

   c. Maximum utilization of heat load demands for processing.

   d. Maximum utilization of mid-day (12 noon to 4 p.m.) atmospheric turbulence for boiler lancing or soot blowing.

TABLE 3 - EMISSION REDUCTION PLANS
EMERGENCY LEVEL

PART A. GENERAL

Upon declaration of Emergency Level the following will apply:

1. There shall be no open burning by any persons of tree waste, vegetation, refuse or debris in any form.

2. The use of incinerators for the disposal of any form of solid or liquid waste shall be prohibited.

3. All places of employment described below shall immediately cease operations:

   a. Mining and quarrying of nonmetallic minerals.

   b. All construction work except that which must proceed to avoid emergency physical harm.

   c. All manufacturing establishments except those required to have in force an air pollution emergency plan.

   d. All wholesale trade establishments, i.e., places of business primarily engaged in selling merchandise to retailers, or industrial, commercial, institutional or professional users, or to other wholesalers or acting as agents in buying merchandise for or selling merchandise to such persons or companies except those engaged in the distribution of drugs, surgical supplies and food.

   e. All offices of local, county and State government including authorities, joint meetings and other public bodies except such agencies which are determined by the chief administrative officer of local, county, or state government,authorities, joint meetings and other public bodies to be vital for public safety and welfare and the enforcement of the provisions of this order.

   f. All retail trade establishments except pharmacies, surgical supply distributors, and stores primarily engaged in the sale of food.

   g. Banks, credit agencies other than banks, securities and commodities brokers, dealers, exchangers and services; offices of insurance carriers; agents and brokers, real estate offices.

   h. Wholesale and retail laundries, laundry services and cleaning and dyeing establishments; photographic studios; beauty shops, barber shops, shoe repair shops.

   i. Advertising offices; consumer credit reporting, adjustment and collection agencies; duplicating, addressing, blueprinting; photocopying, mailing, mailing list and stenographic services; equipment rental services, commercial testing laboratories.

   j. Automobile repair, automobile services, garages.

   k. Establishments rendering amusement and recreational services including motion picture theaters.

1. Elementary and secondary schools, colleges, universities, professional schools, junior colleges, vocational schools, and public and private libraries.

4. All commercial and manufacturing establishments not included in this order will institute such actions as will result in maximum reduction of air pollutants from their operation by ceasing, curtailing, or postponing operations which emit air pollutants to the extent possible without causing injury to persons or damage to equipment.

5. The use of motor vehicles is prohibited except in emergencies with the approval of local or state police.

PART B. SOURCE CURTAILMENT

Any person responsible for the operation of a source of air pollutants listed below shall take all required control actions for this Emergency Level to include the following:

1. Coal or oil-fired electric power generating facilities:

   a. Maximum reduction by utilization of fuels having lowest ash and sulfur content.

   b. Maximum utilization of mid-day (12 noon to 4 p.m.) atmospheric turbulence for boiler lancing or soot blowing.

   c. Maximum reduction by diverting electric power generation to facilities outside of Emergency Area.

2. Coal and oil-fired process steam generating facilities:

   a. Maximum reduction by reducing heat and steam demands to absolute necessities consistent with preventing equipment damage.

   b. Maximum utilization of mid-day (12 noon to 4 p.m.) atmospheric turbulence for boiler lancing and soot blowing.

   c. Take the action called for in the emergency plan.

3. Primary metals, petroleum refining, chemical, mineral processing, grain, paper and allied products industries shall take the following control actions:

   a. Elimination of air pollutants from manufacturing operations by ceasing, curtailing, postponing or deferring production and operations to the extent possible without causing injury to persons or damage to equipment.

   b. Elimination of air pollutants from trade waste disposal processes which emit solid particles, gases, vapors, or malodorous substances.

   c. Maximum reduction of heat load demands for processing.

   d. Maximum utilization of mid-day (12noon to 4 p.m.) atmospheric turbulence for boiler lancing or soot blowing.

REGULATION NO. 62.4

HAZARDOUS AIR POLLUTION CONDITIONS

A. Definitions

The following words and phrases when used in this regulation shall have the meanings respectively ascribed to them:

1. Hazardous Conditions (or hazardous levels) - Conditions created by the release or discharge into the ambient air of one or more air contaminants which because of the characteristic and/or quantity of material involved may pose an imminent threat to the health of anyone who might come in contact with the material through this release as well as involving substantial risk of injury, to include injury to property or plant and animal life. This includes the indirect threat to human life and property by the creation of traffic hazards.

2. Traffic Hazards - Impairment of visibility whenever the concentration of dust, fumes, condensed vapor, or any other substance is such that the horizontal visibility at or near ground level is reduced to 2400 feet or less.

B. General

The owner or operator of any source, in addition to complying with all applicable regulations and standards, shall take all steps necessary to protect human health and welfare and otherwise minimize the effects of unintended, short-term or other releases of air contaminants and other substances which produce unintended hazardous conditions.

C. Traffic Hazards

The emission of smoke, dust, fumes, condensed vapor, or any other substance which creates a traffic hazard on public roads by impairment of visibility, or intensifies an existing condition to the extent that a traffic hazard is created is prohibited.

D. Emergency Actions

In the event that releases of dust, fumes, smoke, gases, mists, vapors or other substances occur in such quantity as to create imminently hazardous levels, the owner or operator of the source shall take all necessary emergency acts to cause the release to cease, to notify nearby residents and occupants, to assist in evacuation if deemed necessary, to notify the Department immediately and to take such other action as responsible officials deem advisable.

E. Cleanup

If releases to the atmosphere of air contaminants result from spillage and cause such concentrations as to produce an imminently hazardous level, clean up activities shall begin as soon as possible and shall be completed to the satisfaction of the Commissioner.

(2.0) F. Notification

The affected public, the Department, the South Carolina Disaster Preparedness Agency, and all law enforcement officials having jurisdiction shall be notified promptly by the owner or operator of the source in the event of releases of material which may cause imminently hazardous levels. If traffic hazards are created, notification shall be made to appropriate state or local agencies of the possible existence of such a condition and of the corresponding need for posting of appropriate signs, warning devices or flagmen. When the concentrations of materials are reduced sufficiently as to no longer present an imminent hazard, public announcement will be made, and normal operations may resume.

(50.0)

REGULATION 62.5

AIR POLLUTION CONTROL STANDARDS

STANDARD NO. 1
EMISSIONS FROM FUEL BURNING OPERATIONS

SECTION I - VISIBLE EMISSIONS

(50.1.2) A. Existing Sources

No one shall discharge to the ambient air from any existing source constructed prior to February 11, 1971, smoke which exceeds an opacity of forty (40) percent. For a total of six (6) minutes in one hour or twenty-four (24) minutes in a twenty-four (24) hour period, forty (40) percent opacity may be exceeded for soot blowing; but shall in no case exceed an opacity of sixty (60) percent.

(50.1.2) B. New Sources

No one shall discharge to the ambient air from any source constructed on or after February 11, 1971, smoke which exceeds an opacity of twenty (20) percent. For a total of six (6) minutes in one hour or twenty-four (24) minutes in a twenty-four (24) hour period, twenty (20) percent opacity may be exceeded for soot blowing; but shall in no case exceed an opacity of sixty (60) percent.

C. Special Provisions

The opacity standards set forth above do not apply during startup or shutdown. Owners and operators shall, to the extent practicable, maintain and operate any facility including associated air pollution control equipment in a manner consistent with good air pollution control practices for minimizing emissions. In addition, the owner or operator shall maintain a log of the time, magnitude, duration and any other pertinent information to determine periods of startup and shutdown and make available to the Department upon request.

(51.5) SECTION II - PARTICULATE EMISSIONS

A. Allowable Discharge

The allowable discharge of particulate matter resulting from fuel burning operations shall be limited to the values obtained by use of Figure 1 and/or Part B. (For the purpose of determining heat input, total equipment capacity refers to total equipment capacity discharging through each stack. If a boiler has more than one (1) stack the total rated capacity will be the boiler rated capacity discharging to these stacks). Interpolation of Figure 1 for fuel burning operations of 1300 million BTU per hour heat input and larger shall be accomplished by use of the equation:

$$E = 57.84\ P^{-0.637}$$

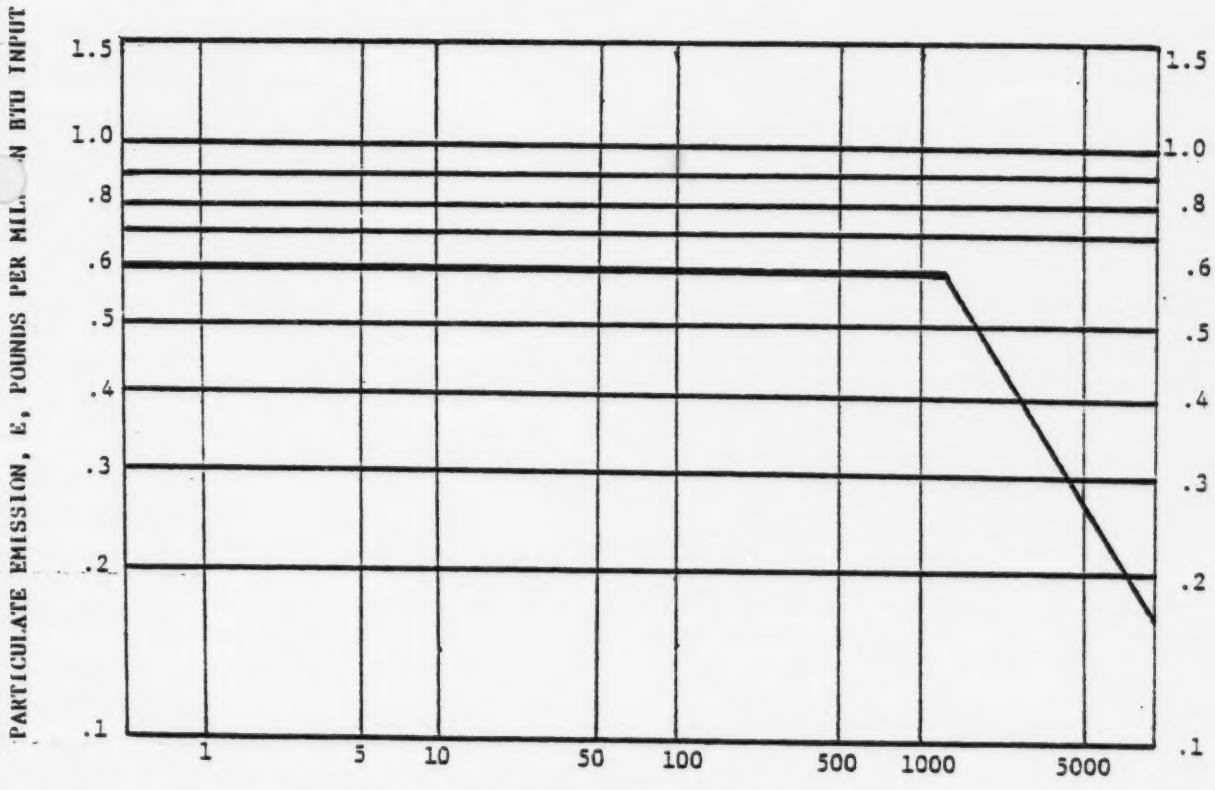
where E = the allowable emission rate in pounds per million BTU heat input,

and P = million BTU heat input per hour

B. Special Provisions

All fuel burning operations of 10 million BTU per hour heat input and smaller constructed prior to February 11, 1971 shall be allowed 0.8 pounds per million BTU input.

Figure 1



(51.6) SECTION III - SULFUR DIOXIDE EMISSIONS

A. General

The maximum allowable discharge of sulfur dioxide (SO_2) from fuel burning operations shall be in accordance with a system of priorities as specified hereinafter in paragraph B. The classifications shall be delineated on a county basis. The maximum allowable discharge for the various classes is specified in paragraph C of this Section.

B. Classifications

1. The class into which a given county falls has been determined by mathematical atmospheric diffusion models and other methods which evaluate those factors which necessitates limits on sulfur dioxide emissions. These factors included but were not limited to: (1) total sulfur dioxide emissions; (2) spatial distribution of sulfur dioxide sources; (3) effects of single, large sources; (4) existing, measured air quality; (5) topographical features of the county; (6) contributions to background levels due to sources outside the county being considered; (7) population density.

2. The assigned classifications will be reviewed periodically at intervals not to exceed three years, and changes will be made as required. When a county is assigned to a more restrictive class, individual compliance schedules will be established in such a way that reasonable time will be allowed for the sources to make necessary changes in equipment and/or fuel contracts.

3. The following classifications are assigned:

Class I - Charleston County

Class II - Aiken County - Anderson County

Class III - All others

C. Allowable Discharges

Sulfur dioxide emissions from fuel burning sources located in various counties will not exceed the following limits:

1. Counties in Class I

Rated Source Size	Maximum Allowable Emissions (lb SO_2/ million BTU Input)
Up to and including 10 million BTU/hr	3.5
Greater than 10 million BTU/hr	2.3

2. Counties in Class II

Rated Source Size	Maximum Allowable Emissions (lb SO_2/million BTU Input)
Up to 1000 million BTU/hr	3.5
1000 million BTU/hr and larger	2.3

3. Counties in Class III

Rated Source Size	Maximum Allowable Emissions (lb SO_2/million BTU Input)
All	3.5

D. Special Provisions

If it can be demonstrated to the satisfaction of the Board that ambient air standards will not be contravened by a source, alone or in combination with other sources, a greater allowance for sulfur dioxide discharges may be made on a case by case(s) basis.

SECTION IV - MONITORING REQUIREMENTS

A. Applicable Sources

The owner or operator of any fossil fuel-fired steam generator of more than 250 million BTU per hour heat input capacity shall install, calibrate, operate, and maintain no later than June 14, 1978, continuous monitoring system(s) for the measurement of opacity which meets the performance specifications of Paragraph E of this Section except where:

1. Gaseous fuel is the only fuel burned;

2. Oil or a mixture of gas and oil are the only fuels burned and the steam generator is able to comply with the provisions of Sections I and II of this Standard without utilization of particulate matter collection equipment, and where the steam generator has never been found, through any administrative or judicial proceedings,to be in violation of Section I of this Standard.

3. The steam generator operates with an annual average capacity factor of 30 percent or less, as reported to the Federal Power Commission for calendar year 1974 or otherwise adequately demonstrated to the Department; and has not subsequently increased this factor to more than 30 percent; or

4. The steam generator is scheduled for retirement on or before October 6, 1980, and provided adequate evidence and guarantees are submitted to the Department which clearly show that the generator will cease operations no later than this date.

B. Time Extensions

Reasonable extensions of time beyond June 14, 1978 may be granted if the owner or operator demonstrates that good faith efforts have been made to obtain and install such systems by this date.

C. Reporting Requirements

The owner or operator of any steam generator subject to the provisions of Paragraph A of this Section shall submit a written report to the Department at least quarterly, or more often if requested. This report shall include, as a minimum, all integrated six minute opacity measurements for the periods during which the applicable provisions of Section I have been exceeded; the date and time identifying each period during which the monitoring system was inoperative, except for zero and span checks; the nature of monitoring system repairs or adjustments; and proof of opacity monitoring system performance whenever system repairs or adjustments have been made. During periods when no excess opacity measurements are recorded and the monitoring system(s) have not been inoperative, repaired or adjusted, the report shall include information to this effect. Alternate data reporting procedures may be allowed if the owner or operator shows, to the satisfaction of the Department, that these procedures are at least as accurate as those described. The owner or operator shall maintain a file of all information contained in the quarterly reports; calibration data for the opacity monitoring system(s); relevant records of adjustments and maintenance performed on such system(s); and all other data collected by the continuous opacity monitoring system(s) for a minimum of two years from the date of submission of such reports or collection of such data.

D. Exemption from Reporting Requirements

A temporary exemption from the opacity monitoring and reporting requirements of this Section may be granted during any period of monitoring system(s) malfunction, provided the owner or operator shows, to the satisfaction of the Department, that the malfunction was unavoidable and is being repaired as expeditiously as possible.

E. Equipment Performance Specifications

The continuous opacity monitoring system(s) required by Paragraph A of this Section shall conform with the performance specifications set forth in 40 CFR, Part 60, Appendix B, Performance Specification 1 which is incorporated by reference as a part of this Standard except that where the term "Administrator" is used the term "Department" shall be substituted. In addition, the opacity monitoring system(s) shall complete a minimum of one cycle of operation for each successive 10-second period; be installed such that representative measurements of opacity from the affected steam generator are obtained; and have an instrument span of approximately 80 percent opacity. Any owner or operator who has purchased opacity monitoring system(s) prior to September 11, 1974, shall be exempt from meeting such test procedures prescribed in 40 CFR, Part 60, Appendix B, Performance Specification 1 until December 14, 1981.

The owner or operator shall record the zero and span drift in accordance with method prescribed by the manufacturer of such opacity monitoring system(s); subject the system(s) to the manufacturer's recommended zero and span check at least once daily unless the manufacturer has recommended adjustments at shorter intervals, in which case such recommendations shall be followed; adjust the zero and span whenever the 24-hour zero drift or 24-hour calibration drift limits of 40 CFR, Part 60, Appendix B, Performance Specification 1 are exceeded; adjust the opacity monitoring system(s) purchased prior to September 11, 1974 whenever the 24-hour zero drift or 24-hour calibration drift exceeds 4 percent opacity for those generators constructed prior to February 11, 1971 and 2 percent opacity for those generators constructed after February 11, 1971.

F. Monitor Location

When the effluents from two or more affected steam generators of similar design and operating characteristics are combined before being released to the atmosphere, the opacity monitoring system(s) shall be installed on the combined effluent. When the affected steam generators are not of similar design and operating characteristics, or when the effluent from one affected steam generator is released to the atmosphere through more than one point, the owner or operator shall apply for an alternate procedure to comply with the requirements of this Section.

G. Exemptions from Monitoring Requirements

Whenever the requirements for continuous opacity monitoring cannot be implemented by the owner or operator due to physical plant limitations, extreme economic burden, or infrequent steam generator operation of less than 30 days per year, or when the specified monitoring procedure would not provide accurate opacity determinations, alternate monitoring and reporting requirements may be approved on a case-by-case basis provided the owner or operator submits a written request to the Department which includes, but not limited to:

1. The basis or reason(s) that alternate requirements are necessary;

2. A proposal of the alternate monitoring and reporting requirements; and

3. Any other information needed by the Department to make a determination that the alternate requirements are adequate to meet the intent of this Section.

(2.0) SECTION V - EXEMPTIONS

Residences or dwellings of four families or less and ocean-going vessels actually engaged in the physical process of national or international trade or defense shall be exempt from the provisions of this Standard.

(4.0)

STANDARD NO. 2

AMBIENT AIR QUALITY STANDARDS

The following table constitutes the ambient air quality standards for the State of South Carolina. The analytical methods to be used will be those applicable Federal Reference Methods published in 40 CFR 51, Appendices A-F. In the case of fluorides either the double paper tape sampler methods (ASTMD-3266-73T) or the

sodium bicarbonate-coated glass tube and particulate filter method (ASTM-3268-73T) may be used.

POLLUTANT	MEASURING INTERVAL	MICROGRAMS/CUBIC METER* **
Sulfur Dioxide	3 hour	1300****
	24 hours	365****
	annual	80
Suspended Particulates	24 hours	250
	annual G.M.***	60
Carbon Monoxide	1 hour	40,000
	8 hour	10,000
Ozone	1 hour	235*****
Non-methane hydrocarbons	3 hour	160
Gaseous Fluorides (as HF)	12 hr. avg.	3.7
	24 hr. avg.	2.9
	1 wk. avg.	1.6
	1 mo. avg.	0.8
Nitrogen Dioxide	annual	100
Lead	Calendar Quarterly Mean	1.5

* Arithmetic Average except in case of suspended particulates
** At 25° C and 760 mm Hg.
*** Geometric Mean
**** Not to be exceeded more than once a year
***** Not to be exceeded more than one day per year

STANDARD NO. 3
EMISSIONS FROM INCINERATORS

All incinerators shall operate within the following minimum emission limitations:

A. Particulates in the flue gas discharged into the atmosphere shall not exceed 0.5 pounds per million BTU of heat input to the incinerator, excluding auxiliary fuel.

B. Emissions shall not produce smoke which exceeds twenty(20) percent opacity for an aggregate of more than three (3) minutes in any one hour or fifteen (15) minutes in a twenty-four hour period.

C. Odors from the incinerator shall be reduced to such a level as not to create an undesirable level.

D. Emissions shall not contain individual particles which are sufficiently large as to be visible as individual particles at the emission point or are of such size and nature as to be visible individually as incandescent particles. This requirement shall only apply if such particles fall on real property other than that of the person responsible for the emission.

STANDARD NO. 4

(51.21) EMISSIONS FROM PROCESS INDUSTRIES

(51.18) SECTION I - SULFURIC ACID MANUFACTURING PLANTS

The rate of emission of sulfur dioxide from sulfuric acid manufacturing plants shall be limited to no more than 4 pounds of sulfur dioxide per ton of 100% sulfuric acid produced.

(51.14) SECTION II - PULP AND PAPER MANUFACTURING PLANTS

The rate of particulate emission from pulp and paper manufacturing plants shall be limited to the following:

	Maximum allowable emission of particulates in pounds/equivalent ton of air dried, unbleached pulp produced.
Recovery Furnace Stack.....	2.75
Dissolving Tank Vents.....	1.0
Lime Kiln Stack.....	1.0

SECTION III- PORTLAND CEMENT MANUFACTURING PLANTS

The rate of emission of particulate matter from Portland cement plants shall be limited to the following:

Production Rate Per Kiln (Tons per Hour)	Maximum Allowable Emissions of Particulate Matter Per Kiln (Pounds per Hour)
10	14
15	18
20	22
25	25
30	29
50	40
60	42
80	45
100	47
120	48

(51.1)SECTION IV - COTTON GINS

The particulate emission from a cotton ginning operation shall be limited to the maximum rate specified in the table below for the process rate allocated to such process.

Production Rate (Output) (Bales* per Hour)	Maximum Allowable Rate of Particulate (Pounds per Hour)
4	12.3
5	14.4
6	16.2
7	18.0
8	19.5
9	21.2
10	22.8
11	24.2
12	25.8
13	27.1
14	28.5
15	29.9
16 and above	31.2

*For the purpose of this standard a bale is defined as a finished bale weighing 500 pounds.

(51.8) SECTION V - HOT MIX ASPHALT PLANTS

A. The rate of emission of particulate matter from hot mix asphalt plants shall be limited to the following:

Aggregate Process Weight (Tons per Hour)	Maximum Allowable Emission Rate (Pounds per Hour)
20	22
50	31
100	38
150	45
200	51
250	56
300	61
350 and above	65

B. All hot mix asphalt plants shall be equipped with a fugitive dust control system which shall be operated and maintained in such a manner as to reduce to a minimum the emission of particulate matter from any point other than the stack outlet.

(51.21)SECTION VI - OTHER PROCESS INDUSTRIES

A. The particulate emissions from all other process industries shall be limited to the rate specified in Table A for the process weight rate allocated to such process, and modified using the effect factors of Table B.

B. Interpolation of the data in this table for process weights up to 30 tons per hour shall be accomplished by use of the equation:

$$E = 4.10\ P^{0.67}$$

and interpolation and extrapolation of the data for process weight rates greater than 30 tons per hour shall be accomplished by using the equation:

$$E = 55.0\ P^{0.11} - 40$$

where E = the allowable emission rate in pounds per hour,
and P = process weight rate in tons per hour.

TABLE A

ALLOWABLE RATE OF EMISSION BASED ON PROCESS WEIGHT RATE

PROCESS WEIGHT RATE (Tons/Hour)	RATE OF EMISSION (Pounds/Hour)	PROCESS WEIGHT RATE (Tons/Hour)	RATE OF EMISSION (Pounds/Hour)
0.05	0.551	8	16.5
0.10	0.877	9	17.9
0.20	1.40	10	19.2
0.30	1.83	15	25.2
0.40	2.22	20	30.5
0.50	2.58	25	35.4
0.75	3.38	30	40.0
1.00	4.10	35	41.3
1.25	4.75	40	42.5
1.50	5.38	45	43.6
1.75	5.96	50	44.6
2.00	6.52	60	46.3
2.50	7.58	70	47.8
3.00	8.56	80	49.0
3.50	9.49	100	51.2
4.00	10.4	500	69.0
4.50	11.2	1000	77.6
5.00	12.0	3000	92.7

TABLE B

EFFECT FACTOR FOR PARTICULATE EMISSIONS*

(TO BE USED WITH STANDARD 4 - SECTION VI)

MATERIAL	EFFECT FACTOR
a. All materials not specifically listed hereunder	1.0
b. Elements and their compounds on the basis of the element contained therein**	none assigned
c. Specific Materials:	
Acid Mists	0.25

* The Board will make additions to this table as required from time to time to preserve public health and property in South Carolina.

** When a material contains two or more elements, the effect factor of the element having the lowest effect factor shall apply.

SECTION VII - NON-ENCLOSED OPERATIONS

A. All non-enclosed sources shall be operated in such a manner that a minimum of particulate matter becomes airborne. In no case shall established ambient air quality standards be exceeded at or beyond the property line.

B. The owner or operator of all sources shall maintain dust control of the premises and access roads by paving, oil treatment or other suitable measures.

C. All crushing, drying, classification and like operations shall employ a suitable control device acceptable to the Department, and shall discharge no more particulate matter than that specified in Section VI of this Standard.

REGULATION 62.5

AIR POLLUTION CONTROL STANDARDS

STANDARD NO. 5
VOLATILE ORGANIC COMPOUNDS

Section I - General Provisions

Part A. Definitions. Unless specifically defined elsewhere in this Standard, the definitions below and those contained in the South Carolina Pollution Control Act and Regulation 62.1, Section I will apply to this Standard.

1. "Major urban county" refers to Charleston, Berkeley, Lexington and Richland counties.

2. "Non-urban county" refers to any county not previously classified as a major urban county.

3. "Capture system" means the equipment (including hoods, ducts, fans, etc.) used to contain, capture, or transport a pollutant to a control device.

4. "Coating line" means one or more apparatus or operations which include a coating applicator, flash-off area, and oven wherein a surface coating is applied, dried, and/or cured.

5. "Commenced" means that an owner or operator has undertaken a continuous program of construction or modification or that an owner or operator has entered into a binding contractural obligation to undertake and complete, within a reasonable time a continuous program of construction or modification.

6. "Construction" means commencement of on-site fabrication, erection, or installation of an emission source, air pollution control equipment, or a facility.

7. "Control device" means equipment (incinerator, adsorber, or the like) used to destroy, contain, or remove air pollutant(s) prior to discharge to the ambient air.

8. "Continuous vapor control system" means a vapor control system that treats vapors dispaced from tanks during filling on a demand basis without intermediate accumulation.

9. "Emission" means the release or discharge, whether directly or indirectly, of any air pollutant into the ambient air from any source.

10. "Existing process" is any process in existence or under construction prior to July 1, 1979.

11. "Facility" means any building, structure, installation, activity, or combination thereof which contains one or more stationary sources of air contaminants and which is located on one or more contiguous or adjacent properties and owned or operated by the same person or persons under common control.

12. "Flashoff area" means the space between the application area and the oven.

13. "Intermittent vapor control system" means a vapor control system that employs an intermediate vapor holder to accumulate vapors displaced from tanks during filling. The control device treats the accumulated vapors only during automatically controlled cycles.

14. "Loading rack" means an aggregation or combination of petroleum loading equipment arranged so that all loading outlets in the combination can be connected to a tank truck or trailer parked in a specified loading space.

15. "Non-attainment area" means an area which is determined by the Department to exceed any National ambient air quality standard.

16. "Organic material" means a chemical compound of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate.

17. "Oven" means a chamber within which heat is used to bake, cure, polymerize, and/or dry a surface coating.

18. "Owner or operator" means any person who owns, leases, controls, operates or supervises a facility, emission source, or air pollution control equipment.

19. "Prime coat" means the first film of coating applied in a multi-coat operation.

20. "Reid vapor pressure" means the absolute vapor pressure of volatile crude oil and volatile nonviscous petroleum liquids except liquified petroleum gases as determined by American Society for Treating and Materials, Part 17, 1973, D-323-72 (Reapproved 1977).

21. "Solvent" means organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents.

22. "Standard conditions" for this Standard mean a temperature of 20°C (68°F) and pressure of 760 millimeters of mercury (29.92 inches of mercury).

23. "Stationary source" means any article, machine, process equipment, or other contrivance from which air pollutants emanate or are emitted to the ambient air, either directly or indirectly, from a fixed location.

24. "Topcoat" means the final film of coating applied in a multiple coat operation.

25. "True vapor pressure" means the equilibrium partial pressure exerted by a petroleum liquid as determined in accordance with methods described in American Petroleum Institute Bulletin 2517, "Evaporation Loss From Floating Roof Tanks," 1962.

26. "Vapor collection system" means a vapor transport system which uses direct displacement by the liquid loaded to force vapors from the tank into a vapor control system.

27. "Volatile organic compound" (Also denoted as VOC) means any compound of carbon that has a vapor pressure greater than 1.5 psia (76.7 mm Hg) excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate. Where there is an issue as to what substances come under control the test procedures will supersede the definition in the regulation and that ASTM test Method D2369-73 (and its analog ASTM D1644-59) should be used. The following compounds will not be considered volatile organic compounds: methane, ethane, 1, 1, 1-trichloroethane (methyl chloroform), trichlorotrifluoroethane (Freon 113), and acetonitrile.

Part B. General Applicability

1. Unless otherwise stated, this Standard will apply statewide to existing facilities whose total potential emissions of volatile organic compounds are more than 550 pounds (250 kilograms) in any one day (normal size-100 TPY), or more than 150 pounds (68 kilograms) in any one hour.

2. The effective date of this Standard is July 1, 1979.

Part c. Recordkeeping, Reporting, Monitoring

1. The owner or operator of any volatile organic compound emission source or control equipment shall maintain, as a minimum: records detailing all activities relating to any compliance schedule under Section III; records of all compliance testing conducted under Part F below, and records of all monitoring conducted under paragraphs 3.1. and 3.b. below.

2. The owner or operator of any applicable volatile organic compound emission source or control equipment shall, on request, make available to the Department, reports detailing the nature, specific sources, and total annual quantities of all volatile organic compound emissions.

3. The owner or operator of any volatile organic compound emission source or control equipment shall:

a. install, operate, and maintain process and/or control equipment monitoring instruments or procedures as necessary to comply with paragraphs 1 and 2 above; and,

b. maintain, in writing, data and/or reports relating to monitoring instruments or procedures which will, upon review, document the compliance status of the volatile organic compound emission source or control equipment to the satisfaction of the Department.

4. Copies of all records and reports under paragraphs 1, 2, and 3 above, shall be retained by the owner or operator for two years after the date on which the record was made or the reports submitted.

5. Copies of all records and reports required under this Part shall be available for inspection during normal working hours and furthermore, copies of the required records and reports shall be furnished within ten working days after receipt of a written request from the Department.

Part D. Petition for Alternative Controls

1. If the owner or operator of a source of volatile organic compounds regulated by this Standard can demonstrate that compliance with Section II below would not be feasible, he may petition the Department to allow the use of alternative operational and/or equipment controls for the reduction of volatile organic compound emissions of such source. Petition must be made for each source within a given facility and nothing herein should be in-

interpreted as permitting a source regulated by this Standard to exceed emission limits for that source as given in Section II below. The petition must be submitted in writing to the Department and must contain:

a. the name and address of the company and the name, address and telephone number of a company officer over whose signature the petition is submitted; and,

b. a description of all operations conducted at the location to which the petition applies and the purpose that the volatile organic compounds emitting equipment serves within the operations; and,

c. reference to the specific operational and/or equipment controls under Section II below which alternative operational and/or equipment controls are proposed; and,

d. a detailed description of the proposed alternative operational and/or equipment controls, the magnitude of volatile organic compound emission reduction which will be achieved, and the quantity and composition of volatile organic compounds which will be emitted if the alternative operational and/or equipment controls are instituted; and,

e. a schedule for the installation and/or institution of the alternative operational and/or equipment controls in conformance with Section III below.

2. The Department may approve a Petition for Alternative Control if:

a. the petition is submitted in accordance with paragraph 1 above; and,

b. the Department determines that the petitioner cannot comply with Section II below because of technological infeasibility (considering costs); and,

c. the petition contains a schedule for achieving and maintaining reduction of volatile organic compound emissions to the maximum extent feasible and as expeditiously as practicable; and,

d. a nuisance condition will not result from operation of the source as proposed in the Petition; and,

e. the alternative control system will have efficiencies at least as

good as the controls listed in the appropriate part of Section II below.

Part E. Petition for Alternative Compliance Methods

1. The owner or operator of a facility which contains more than one source regulated by this standard may petition the Department for permission to control the emissions of volatile organic compounds from the separate sources to varying degrees, provided the combined resultant emissions do not exceed the total emissions that would result from the application of this standard to each source separately.

Petitions will be accepted only for those sources to which this standard applies and nothing herein should be interpreted as permitting the averaging of emissions from sources not subject to this standard with the emissions from sources which are subject to this standard. The petition shall be submitted in writing to the Department, and must contain:

a. the name and address of the company, the name, address and telephone number of a company officer over whose signature the petition is submitted, and the location of the facility which is the subject of the petition; and

b. a description of all sources the emissions from which are proposed for averaging; and

c. the reasons why the plant averaging method is necessary or desirable including cost analyses; and

d. a description of the method of determining the weighted average from all of the sources which are the subject of the petition.

2. The Department may approve a Petition for Alternative Compliance Method if:

a. the petition is submitted in accordance with paragraph 1 above; and

b. the petition contains a valid method for averaging emissions from the separate sources on a weighted basis; and

c. the reasons given for the alternative compliance method are reasonable and valid; and

d. the emissions of volatile organic compounds from the separate sources are quantifiable, and the total of such emissions will not exceed the emissions that would result from the application of this standard to each source separately.

Part F. Case by Case Exceptions to Provisions of Section II

1. If the owner or operator of a source of volatile organic compounds regulated by this standard can demonstrate that compliance with applicable portions of Section II below would not be economically feasible, the Department may, on a case-by-case basis, allow emission limitations less stringent than those required by applicable parts of Section 2 below.

All data pertinent to the showing of economic infeasibility must accompany a petition for this relief; and shall include a present value analysis showing economic infeasibility.

2. The Department may approve less stringent requirements, determined on a case-by-case basis if the preponderance of evidence justifies such approval.

3. No such approval shall be construed as granting exemptions from any of the steps in compliance schedules contained in Section III below, until approval is granted. Adjustments in compliance schedules as the result of this approval shall not extend, in any case, beyond December 31, 1982.

Part G. Circumvention

No owner or operator subject to this Standard may build, erect, install, or use any article, machine, equipment, process, or method, the use of which conceals an emission which would otherwise constitute a violation of an applicable Regulation. This includes, but is not limited to, the use of gaseous

dilutants to achieve compliance and the piecemeal carrying out of an operation to avoid coverage by this Standard that applies only to operations larger than a specified size.

Part H. Volatile Organic Compound Compliance Testing

1. The owner or operator of any volatile organic compound source required to comply with Section II below shall, at his own expense, conduct such tests as required by the Department in order to demonstrate complete compliance. Further, the test methods and procedures shall be those either specified by the Department or such alternative methods approved by the Department. All tests shall be made by, or under the direction of, a person qualified by training and/or experience in the field of air pollution testing.

2. No volatile organic compound emissions compliance testing will be allowed, nor the results accepted, unless prior notification has been supplied to the Department as required under paragraphs 3. and 4. below and the Department has granted approval.

3. Any person proposing to conduct a volatile organic compound emissions compliance test shall notify the Department, in the manner set forth under paragraph 4. below of the intent to test, not less than 15 days before the proposed initiation of the tests so the Department may at its option observe the test.

4. Any person notifying the Department of a proposed volatile organic compound emissions compliance test shall include, as part of notification, the following minimum information:

a. a statement indicating the purpose of the proposed test;

b. a description of the source to be tested;

c. a description of the test procedures, equipment, and sampling sites; and,

d. a timetable, setting forth the dates on which;

(i) the testing will be conducted; and,

(ii) a letter of preliminary results, containing, as a minimum, the process weight rates, % isokinetics, and the average emission rate (not later than 30 days after completion of on-site sampling).

(iii) the final test reports will be submitted (not later than 60 days after completion of on-site sampling).

5. For compliance testing, the owner or operator of any volatile organic compound emissions source shall be responsible for providing;

a. sampling ports, pipes, lines, or appurtenances for the collection of samples and data required by the test procedure;

b. safe access to the sample and data collection locations; and,

c. light, electricity, and other utilities required for sample and data collection.

Section II - Provisions for Specific Sources

Part A. Coating Industry

1. For the purpose of this Part, the following definitions apply:

a. "Coil coating" means the coating of any flat metal sheet or strip that comes in rolls or coils.

b. "Paper coating" means coatings put on paper and pressure sensitive tapes regardless of substrate. Related web coating processes on plastic film and decorative coatings on metal foil are included in this definition.

c. "Rotogravure coating" means the application of a coating material to a substrate by means of a roll coating technique in which the pattern to be applied is etched on the coating roll. The coating material is picked up in these recessed areas and is transferred to the substance.

d. "Magnet wire coating" means the process of applying a coating of electrically insulating varnish or enamel to aluminum or copper wire for use in electrical machinery.

2. This Part will apply, in accordance with Sections I, above, and III, below, to:

a. coating applicator(s) and oven(s) of sheet, can or end coating lines involved in sheet basecoat (exterior and interior) and overvarnish; two-piece can exterior (basecoat and overvarnish); two and three-piece can interior body spray; two-piece can exterior end (spray or roll coat); three-piece can side-seam spray and end sealing compound operations. No owner or operator of a can coating line subject to this Part may cause, allow, or permit the discharge into the atmosphere of any volatile organic compounds in excess of the following levels;

(i) 2.8 pounds per gallon (0.34 kilograms per liter of coating, excluding water, delivered to the coating applicator from sheet basecoat (exterior and interior) and overvarnish or two-piece can exterior (basecoat and overvarnish) operations.

(ii) 4.2 pounds per gallon (0.51 kilograms per liter) of coating, excluding water, delivered to the coating applicator from two and three-piece can interior body spray and two-piece can exterior end (spray or roll coat) operations.

(iii) 5.5 pounds per gallons (0.66 kilograms per liter) of coating, excluding water, delivered to the coating applicator from three-piece can side-seam spray operations.

(iv) 3.7 pounds per gallon (0.44 kilograms per liter) of coating, excluding water, delivered to the coating applicator from end sealing compound operations.

b. coating applicator(s), oven(s) and quench area(s) of coil coating lines involved in prime and top coat or single coat operations. No owner or operator of a coil coating line subject to this Part may cause, allow or permit the discharge into the atmosphere of any volatile organic compounds in excess of 2.6 pounds per gallon (0.31 kilograms per liter) of coating, excluding water, delivered to the coating applicator from prime and topcoat or single coat operations.

c. roll knife or rotogravure coater(s) and drying oven(s) of fabric, paper and vinyl coating lines. No owner or operator of a fabric coating line or a vinyl coating line or a paper coating line subject to this Part may cause, allow or permit the discharge into the atmosphere of any volatile organic compounds in excess of the following levels;

(i) 2.9 pounds per gallon (0.35 kilograms per liter) of coating, excluding water, delivered to the coating applicator from a fabric coating line or a paper coating line.

(ii) 3.8 pounds per gallon (0.45 kilograms per liter) of coating, excluding water, delivered to the coating applicator from a vinyl coating line.

d. the application area(s), flashoff area(s), and oven(s) of metal furniture coating lines or large applicance coating lines or components thereof involved in prime and topcoat or single coating operations. No owner or operator of a metal furniture coating line or a large applicance coating line or components thereof subject to this Part may cause, allow or permit the discharge into the atmosphere of any volatile organic compounds in excess of the following levels;

(i) 3.0 pounds per gallon (0.36 kilograms per liter) of coating, excluding water, delivered to the coating applicator from prime and topcoat or single cost operations from a metal furniture coating line.

(ii) 2.8 pounds per gallon (0.34 kilograms per liter) of coating, excluding water, delivered to the coating applicator from prime, single or topcoat coating operations from a large appliance coating line or components thereof. This emission limit will not apply to the use of quick-drying lacquers for repair of scratches and nicks that occur during assembly, provided that the volume of coating does not exceed 1 quart (0.95 liters) in any one 8-hour period.

e. the oven(s) of magnet wire coating operations. No owner or operator of a magnet wire coating oven subject to this Part may cause, allow or permit the discharge into the atmosphere of any volatile organic compounds in excess of 1.7 pounds per gallons (0.20 kilograms per liter) of coating, excluding water, delivered to the coating applicator from magnet wire coating operations.

3. The emission limits under paragraph 2 above shall be achieved by:

(i) the application of low solvent content coating technology; or,

(ii) incineration, provided that 90 percent of the nonmethane volatile organic compounds (VOC measured as total combustible carbon) which enter the incinerator are oxidized to carbon dioxide and water; or,

(iii) carbon bed solvent recovery system; or,

(iv) alternative controls as allowed under Section I, Part D.

Part B. Petroleum Liquid Storage

1. For the purpose of this Part, the following definitions apply:

a. "Condensate" means hydrocarbon liquid separated from natural gas which condenses due to changes in the temperature and/or pressure and remains liquid at standard conditions.

b. "Custody transfer" means the transfer of produced crude oil and/or condensate, after processing and/or treating in the producing operations, from storage tanks or automatic transfer facilities to pipelines or any other forms of transportation.

c. "External floating roof" means a storage vessel cover in an open top tank consisting of a double deck or pontoon single deck which rests upon and is supported by the petroleum liquid being contained and is equipped with a closure seal or seals to close the space between the roof edge and tank shell.

d. "Internal floating roof" means a cover or roof in a fixed roof tank which rests upon or is floated upon the petroleum liquid being contained, and is equipped with a closure seal or seals to close the space between the roof edge and tank shell.

e. "Petroleum refinery" means any facility engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, lubricants, or other products through distillation of crude oils, or through redistillation, cracking, extraction, or reforming unfinished petroleum derivatives.

f. "Petroleum liquids" means petroleum, condensate, and any finished or intermediate products manufactured in a petroleum refinery but does not mean Number 2 through Number 6 fuel oils as specified in A.S.T.M. D396-69, gas turbine fuel oils Numbers 2-GT through 4-GT as specified in A.S.T.M. D2880-71, or diesel fuel oils Numbers 2-D and 4-D as specified in A.S.T.M. D975-68.

g. "True vapor pressure" means the equilibrium partial pressure exerted by a petroleum liquid as determined in accordance with methods described in American Petroleum Institute Bulletin 2517, "Evaporation Loss From Floating Roof Tanks", 1962.

2. This part will apply, in accordance with Section I, Part B, above, and, Section III below, to all fixed roof storage vessels with capacities of 40,000 gallons (151,412 liters) and larger which contain volatile petroleum liquids whose true vapor pressure is greater than 1.52 psia (10.5 kilo pascals).

3. This Part will not apply to volatile petroleum liquid storage vessels;

a. equipped with external floating roofs before July 1, 1979; or,

b. having capacities less than 416,000 gallons (1,600,000 liters) used to store produced crude oil and condensate prior to lease custody transfer.

4. No owner or operator shall permit the use of a non-exempt source unless;

a. the source has been retrofitted with an internal floating roof equipped with a closure seal, or seals, to close the space between the roof edge and tank wall; or,

b. the source has been retrofitted with equally effective alternative control approved by the Department; and,

c. the source is maintained such that there are no visible holes, tears, or other openings in the seal or any seal fabric or materials; and,

d. all openings except stub drains are equipped with covers, lids, or seals such that;

(i) the cover, lid, or seal is in the closed position at all times except when in actual use; and,

(ii) automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports; and,

(iii) rim vents, if provided, are set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting; and,

e. routine inspections are conducted through roof hatches once per month; and,

f. a complete inspection of cover and seal is conducted whenever the tank is emptied for nonoperational reasons or once per year; and,

g. records are maintained in accordance with Section I, Part C above that shall include;

(i) reports of the results of inspections conducted under subparagraphs 4.e. and 4.f. above; and,

(ii) a record of the average monthly storage temperatures and true vapor pressures of volatile petroleum liquids stored; and,

(iii) records of the throughput quantities and types of volatile petroleum liquids for each storage vessel.

Part C. Bulk Gasoline Plants

1. For the purpose of this Part, the following definitions apply:

a. "Bottom filling" means the filling of a tank truck or stationary storage tank through an opening that is flush with the tank bottom.

b. "Bulk gasoline plant" means a gasoline storage and distribution facility with an average daily throughput of less than 20,000 gallons (76,000 liters) which received gasoline from bulk terminals by trailer transport, stores it in tanks, and subsequently dispenses it via account trucks to local farms, businesses, and service stations.

c. "Bulk gasoline terminal" means a gasoline storage facility which receives gasoline from refineries primarily by pipeline, ship, or barge, and delivers gasoline to bulk gasoline plants or to commercial or retail accounts primarily by tank truck; and has a daily throughput of more than 20,000 gallons (76,000 liters) of gasoline.

d. "Gasoline" means any petroleum distillate having a Reid vapor pressure of 4 psi (27.6 kPa) or greater.

e. "Splash filling" means the filling of a tank truck or stationary storage tank through a pipe or hose whose discharge opening is above the surface level of the liquid in the tank being filled.

f. "Submerged filling" means the filling of a tank truck or stationary tank through a pipe or hose whose discharge opening is entirely submerged when the pipe normally used to withdraw liquid from the tank can no longer withdraw any liquid.

g. "Vapor balance system" means a combination of pipes or hoses which create a closed system between the vapor spaces of an unloading tank and a receiving tank such that vapors displaced from the receiving tank are transferred to the tank being unloaded.

2. This part will apply, in accordance with Section I, Part B, above, and, Section III, below, to the unloading, loading, and storage facilities of all bulk gasoline plants and all tank trucks or trailers delivering or receiving gasoline at bulk gasoline plants.

3. No owner or operator of a bulk gasoline plant may permit stationary storage tanks of more than 528 gallons (2,000 liters) capacity to load or unload gasoline unless each tank is equipped with a vapor balance system as described under paragraph 6, below, and approved by the Department; and,

a. each tank is equipped with a submerged fill pipe, approved by the Department; or,

b. each tank is equipped with a fill line whose discharge opening is flush with the bottom of the tank.

4. No owner or operator of a bulk gasoline plant, tank truck or trailer may permit the loading or unloading of tank trucks or trailers to a stationary storage tank of more than 528 gallons (2,000 liters) capacity at a bulk gasoline plant unless each tank truck or trailer is equipped with a vapor balance system as described under paragraph 6, below, and approved by the Department; and,

a. equipment is available at the bulk gasoline plant to provide for the submerged filling of each tank truck or trailer; or,

b. each tank truck or trailer is equipped for bottom filling.

5. No owner or operator of a bulk gasoline plant, tank truck or trailer may permit the transfer of gasoline between tank truck or trailer and stationary storage tank unless:

a. the transfer is conducted in accordance with paragraphs 3. and 4., above; and,

b. the vapor balance system is in good working order and is connected and operating; and,

c. tank truck or trailer hatches are closed at all times during loading operations; and,

d. there are no leaks in the tank trucks' or trailers' pressure/vacuum relief valves and hatch covers, nor the truck tanks or storage tanks associated vapor and liquid lines during loading or unloading and,

e. the pressure relief valves on storage vessels and tank trucks or trailers are set to release at no less than 0.7 psi (4.8 kPa) or the highest possible pressure (in accordance with state or local fire codes, or the National Fire Prevention Association guidelines).

6. Vapor balance systems required under paragraphs 3. and 4., above, shall consist of the following major components;

a. a vapor space connection on the stationary storage tank equipped with fittings which are vapor tight and will automatically and immediately close upon disconnection so as to prevent release of organic material; and,

b. a connecting pipe or hose equipped with fittings which are vapor tight and will automatically and immediately close upon disconnection so as to prevent release of organic material; and,

c. a vapor space connection on the tank truck or trailer equipped with fittings which are vapor tight and will automatically and immediately close upon disconnection so as to prevent release of organic material.

7. Notwithstanding Section I, Part B.2., no owner or operator of a bulk gasoline plant may permit gasoline to be spilled, discharged in sewers, stored in open containers or handled in any other manner that would result in evaporation.

Part D. Bulk Gasoline Terminals

1. For the purpose of this Part the following definitions apply:

a. "Bulk gasoline terminal" means a gasoline storage facility which receives gasoline from refineries primarily by pipeline, ship, or barge, and delivers gasoline to bulk gasoline plants or to commercial or retail accounts primarily by tank truck; and has a daily throughput of more than 20,000 gallons (76,000 liters) of gasoline.

b. "Gasoline means a petroleum distillate having a Reid vapor pressure of 4 psi (27.6 kPa) or greater.

2. This part will apply in accordance with Section I, Part B, .. above. and, Section III, below, to bulk gasoline terminals and the appurtenant equipment necessary to load the tank truck or trailer compartments.

3. No person may load gasoline into any tank trucks or trailers from any bulk gasoline terminal unless:

a. the bulk gasoline terminal is equipped with a vapor control system, capable of complying with paragraph 4., below,properly installed, in good working order, in operation and consisting of one of the following;

(i) an adsorber or condensation system which may not allow mass emissions of VOC's to exceed 4.7 grains per gallon (30 milograms per liter) of gasoline loaded; or

(ii) a vapor collection system which directs all vapors to a fuel gas system; or,

(iii) alternative controls as allows under Section I, Part D.

b. all displaced vapors and gases are vented only to the vapor control system; and,

c. a means is provided to prevent liquid drainage from the loading device when it is not in use or to accomplish complete drainage before the loading device is disconnected; and,

d. all loading and vapor lines are equipped with fittings which make vapor-tight connections and which close automatically when disconnected.

5. Sources affected under paragraph 2., above, may not;

a. allow gasoline to be discarded in sewers or stored in open containers or handled in any manner that would result in evaporation; nor,

b. allow the pressure in the vapor collection system to exceed the tank truck or trailer pressure relief settings.

Part E. Gasoline Service Stations - Stage 1.

1. For the purpose of this Part, the following definitions apply:

a. "Gasoline" means a petroleum distillate having a Reid vapor pressure of 4 psi (27.6 kPa) or greater.

b. "Submerged Fill Pipe" means any fill pipe with a discharge opening which is entirely submerged when the pipe normally used to withdraw liquid from the tank can no longer withdraw any liquid.

c. "Owner" means any person who has legal or equitable title to the gasoline storage tank at a facility.

d. "Operator" means any person who leases, operates, controls or supervises a facility at which gasoline is dispersed.

e. "Gasoline Dispensing Facility" means any site where gasoline is dispersed to motor vehicle gasoline tanks from stationary storage tanks.

2. This part will apply in accordance with Section I, Part B, above, and, Section III, below, to all gasoline dispensing facilities, except:

a. transfers made to storage tanks of gasoline dispensing facilities equipped with floating roofs or their equivalent which have been approved by the Department.

b. stationary gasoline storage containers of less than 550 gallons (2,085 liters) capacity used exclusively for the fueling of implements of husbandry, provided the containers are equipped with submerged fill pipes.

3. No owner or operator subject to this Part may transfer or cause or allow the transfer of gasoline from any gasoline tank truck or trailer into any stationary storage tank described below unless the tank is equipped with a submerged fill pipe and the vapors displaced from the storage tank during filling are processed by a vapor control system in accordance with a paragraph 4., below;

a. any stationary storage tank located at a gasoline dispensing facility, with a capacity of 2,000 gallons (7,580 liters) or more which is in place before June 30, 1979; and,

b. any stationary storage tank located at a gasoline dispensing facility, with a capacity of 250 gallons (948 liters) or more, which is installed after June 30, 1979.

4. The vapor control system required by paragraph 3., above, shall include one or more of the following:

a. a vapor-tight line from the storage tank to the delivery vessel and a system that will ensure the vapor line is connected before the gasoline can be transferred into the tank; or,

b. a refrigeration-condensation system or equivalent designed to recover at least 90 percent by weight of the volatile organic compounds in the displaced vapor; or,

c. a system demonstrated to have control efficiency equivalent to or greater than provided under subparagraph a. or b., above, and approved by the Department.

5. The vapor-laden gasoline tank truck or trailer shall be subject to the following conditions;

a. the tank truck or trailer must be designed and maintained to be vapor tight at all times; and

b. the vapor-laden tank truck or trailer may be refilled only at;

(i) bulk gasoline plants complying with Part C., above,

(ii) bulk gasoline terminals complying with Part D., above.

6. Each owner of a gasoline storage tank covered by paragraphs 2. and 3., above, shall;

a. purchase and install all necessary control systems and make all necessary process modifications in accordance with paragraphs 3, 4, and 5, above; and,

b. in accordance with Section I, Part C and Section I, Part D provide instructions to the operator of the gasoline dispensing facility describing necessary maintenance operations and procedures for prompt notification of the owner in case of any malfunctions of the control system; and,

c. repair, replace or modify any worn out or malfunctioning component or element of design and keep records, in accordance with Section I, Part C, above, of the repair, replacement or modification of any component or element of design of the control system.

7. Each operator of a gasoline dispensing facility covered by paragraphs 2. and 3., above, shall;

a. maintain and operate the control system in accordance with the specifications and the operating and maintenance procedures specified by the owner; and,

b. promptly notify the owner of the control system of any scheduled maintenance or malfunction requiring replacement or repair of major components of the system; and,

c. maintain records, in accordance with Section I, Part C, above, of all maintenance performed by the operator and of all notifications to the owner of any scheduled maintenance or malfunction requiring replacement or repair of major components of the system and the action taken by the owner. Such records shall at a minimum include;

(i) the scheduled date for maintenance or the date a malfunction was detected; and,

(ii) the date the need for maintenance or malfunction of major system components was reported to the owner; and,

(iii) the date the maintenance was performed or the malfunction corrected by either the operator or the owner; and,

d. maintain gauges, meters, or other specified testing devices in proper working order.

Part F. Solvent Metal Cleaning

1. For the purpose of this section the following definitions apply:

a. "Cold cleaning" means the batch process of cleaning and removing soils from metal surfaces by spraying, brushing, flushing or immersion while maintaining the solvent below its boiling point. Wipe cleaning is not included in this definition.

b. "Conveyorized degreasing" means the continuous process of cleaning and removing soils from metal surfaces by operating with either cold or vaporized solvents.

c. "Freeboard height" means the distance from the top of the vapor zone to the top of the degreaser tank.

d. "Freeboard ratio" means the freeboard height divided by the width of the degreaser.

e. "Open top vapor degreasing" means the batch process of cleaning and removing soils from metal surfaces by condensing hot solvent vapor on the colder metal parts.

f. "Solvent metal cleaning" means the process of cleaning soils from metal surfaces by cold cleaning or open top vapor degreasing or conveyorized degreasing.

2. This part applies in accordance with Section I, Part B, above and, Section III, below, in the following manner:

a. Control system A shall apply to cold cleaning, open top vapor degreasing and conveyorized degreasing operations, if the facility is located in a non-designated county and uses more than 100 tons per year of solvents on a facility-wide basis based upon annual solvent purchase records.

b. Control system B shall apply to cold cleaning, open top vapor degreasing and conveyorized degreasing operations, if the facility is located in a non-attainment county and uses more than 100 tons per year of solvents on a facility-wide basis based upon annual solvent purchase records.

3. In lieu of meeting the requirements of 2(a)(i), a facility in a non-urban county may choose to retain all solvent purchase and return records, including, making them available to the Department and if the potential loss to the ambient air, by evaporation or by other means, of solvent is less than 100 tons/year, then the facility is exempted from control system A requirements. Potential loss for this purpose shall be determined by subtracting returned solvent from purchased solvent.

4. The provisions of this section shall apply with the following exceptions:

a. open top vapor degreasers with an open area smaller than one square meter (10.8 square feet) shall be exempt from paragraphs 6(b)(iii) b and 6(b)(iii)d of this section,

b. conveyorized degreasers with an air/vapor interface smaller than 2.0 square meters (21.6 square feet) shall be exempt from paragraphs 7(b)(iii) of this section,

5. Except as provided under paragraph (4) of this section, the owner or operator of a cold cleaning facility shall;

a. for Control System A;

(i) equip the cleaner with a cover; and,

(ii) equip the cleaner with a facility for draining cleaned parts; and,

(iii) provide a permanent, conspicuous label, summarizing the operating requirements; as such,

(iv) drain the cleaned parts for at least 15 seconds or until dripping ceases; and,

(v) close degreaser cover whenever parts are not handled in the cleaner; and,

(vi) store waste solvent only in covered containers; and,

(vii) do not dispose of waste solvent nor transfer it to another party, such that greater than 20 percent of the waste (by weight) can evaporate into the atmosphere.

b. For Control System B;

(i) equip the cleaner with a cover and the cover shall be so designed that it can be easily operated with one hand; if,

(a) the solvent volatility is greater than 2 kilo Pascals (15 millimeters of mercury or 0.3 pounds per square inch) measured at 38°C (100°F); or,

(b) the solvent is agitated; or,

(c) the solvent is heated; and,

(ii) equip the cleaner with a facility for draining cleaned parts and the drainage facility shall be constructed internally so that parts are enclosed under the cover while draining if the solvents volatility is greater than 4.3 kilo Pascals (32 millimeters of mercury or 0.6 pounds per square inch) measured at 38°C (100°F), except that the drainage facility may be external for applications where an internal type cannot fit into the cleaning system; and,

(iii) install one of the following control devices if the solvent volatility is greater than 4.3 kilo Pascals (33 millimeters of mercury or 0.6 pounds per square inch) measured at 38°C (100°F), or if the solvent is heated above 50°C (120°F);

(a) freeboard that gives a freeboard ratio greater than or equal to 0.7; or,

(b) water cover (solvent must insoluble in and heavier than water); or,

(c) other systems of equivalent control, such as refrigerated chiller or carbon adsorption, approved by the Department; and,

(iv) provide a permanent, conspicuous label, summarizing the operating requirements; and,

(v) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, such that greater than 20 percent of the waste solvent (by weight) can evaporate into the atmosphere; and,

(vi) close the cover whenever parts are not being handled in the cleaner; and,

(vii) drain the cleaned parts for at least 15 seconds or until dripping ceases; and,

(viii) if used, supply a solvent spray that is a solid fluid stream (not a fine, atomized or shower type spray) at a pressure which does not cause excessive splashing.

6. Except as provided under paragraph (4) of this section, the owner or operator of an open top vapor degreaser shall;

a. For Control System A;

(i) equip the vapor degreaser with a cover that can be opened and closed easily without disturbing the vapor zone; and,

(ii) keep the cover closed at all times except when processing work loads through the degreaser; and,

(iii) minimize solvent carryout by:

(a) racking parts to allow complete drainage; and,

(b) moving parts in and out of the degreaser at less than 3.3 meters per second (11 feet per minute); and,

(c) holding the parts in the vapor zone at least 30 seconds or until condensation ceases; and,

(d) tipping out any pools of solvent on the cleaned parts before removal from the vapor zone; and,

(e) allowing parts to dry within the degreaser for at least 15 seconds or until visually dry; and,

(iv) not degrease porous or absorbent materials, such as cloth, leather, wood, or rope; and,

(v) not occupy more than half of the degreaser's open top area with a workload; and,

(vi) not load the degreaser to the point where the vapor level would drop more than 10 centimeters (4 inches) when the workload is removed from the vapor zone; and,

(vii) always spray below the vapor level; and,

(viii)repair solvent leaks immediately, or shutdown the degreaser; and,

(ix) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, such that greater than 20 percent of the waste solvent (by weight) can evaporate into the atmosphere; and,

(x) not operate the cleaner so as to allow water to be visually detectable in solvent exiting the water separator; and,

(xii) not use ventilation fans near the degreaser opening, not provide exhaust ventilation exceeding 20 cubic meters per minute per square meter (65 cubic feet per minute per square foot) of degrease open area, unless necessary to meet OSHA requirements; and,

b. for Control System B;

(i) equip the vapor degreaser with a cover that can be opened and closed easily without disturbing the vapor zone; and,

(ii) provide the following safety switches;

(a) a condenser flow switch and thermostat which shut off the pump heat if the condenser coolant is either not circulating or too warm; and,

(b) a spray safety switch which shuts off the spray pump if the vapor level drops more than 10 centimeters (4 inches); and,

(iii) install one of the following control devices;

(a) powered cover, if the freeboard ratio is greater than or equal to 0.75, and if the degreaser opening is greater than 1 square meter (10 square feet); or,

(b) refrigerated chiller; or,

(c) enclosed design (cover or door opens only when the dry part is actually entering or exiting the degreaser); or,

(d) carbon adsorption system with ventilation greater than or equal to 15 cubic meters per minute per square meter (50 cubic feet per minute per square foot) of air/vapor area (when cover is open), and exhausting less than 25 parts per million of solvent averaged over one complete adsorption cycle; or,

(e) a control system, demonstrated to have control efficiency equivalent to or greater than any of the above, and approved by the Director; and,

(iv) permanent, conspicuous label, summarizing operating procedures (v) to (x).

(v) keep the cover closed at all times except when processing work loads through the degreaser; and,

(vi) minimize solvent carryout by;

(a) racking parts to allow complete drainage; and,

(b) moving parts in and out of the degreaser at less than 3.3 meters per second (11 feet per minute); and,

(c) holding the parts in the vapor zone at least 30 seconds or until condensation ceases; and,

(d) tipping out any pools of solvent on the cleaned parts before removal from the vapor zone; and,

(e) allowing parts to dry within the degreaser for at least 15 seconds or until visually dry; and,

(vii) not degrease porous or absorbent materials, such as cloth, leather, wood or rope; and,

(viii) not occupy more than half of the degreaser's open top area with a workload; and,

(ix) not load the degreaser to the point where the vapor level would drop more than 10 centimeters (4 inches) when the workload is removed from the vapor zone; and,

(x) always spray below the vapor level; and,

(xi) repair solvent leaks immediately, or shutdown the degreaser; and,

(xii) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, such that greater than 20 percent of the waste solvent (by weight) can evaporate into the atmosphere; and,

(xiii) not operate the cleaner so as to allow water to be visually detectable in solvent exiting the water separator; and,

(xiv) not use ventilation fans near the degreaser opening, nor provide exhuast ventilation excedding 20 cubic meters per minute per square meter (65 cubic feet per minute per square foot) of degreaser open area, unless necessary to meet OSHA requirements; and,

7. Except as provided under paragraph (4) of this section the owner or operator of a conveyorized degreaser shall;

a. For Control System A;

(i) not use workplace fans near the degreaser opening, nor provide exhaust ventilation exceeding 20 cubic meters per minute per square meter (65 cubic feet per minute per square foot) of degreaser opening, unless necessary to meet OSHA requirements; and,

(ii) minimize carryout emissions by;

(a) racking parts for best drainage; and,

(b) maintaining the vertical conveyor speed at less than 3.3 meters per minute (11 feet per minute); and,

(iii) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, such that greater than 20 percent of the waste solvent (by weight) can evaporate into the atmosphere; and,

(iv) repair solvent leaks immediately, or shutdown the degreaser; and,

(v) not operate the cleaner so as to allow water to be visually detectable in solvent exiting the water separator; and,

b. For Control System B;

(i) install one of the following control devices;

(a) refrigerated chiller; or,

(b) carbon adsorption system, with ventilation greater than or equal to 15 cubic meters per minute per square meter (50 cubic feet per minute per square foot) of air/vapor area (when downtime covers are open), and exhausting less than 25 parts per million of solvent by volume averaged over a complete adsorption cycle; or,

(c) a system, demonstrated to have a control efficiency equivalent to or greater than paragraph 7(b)(i)a or 7(b)(i)b of this section, and approved by the Director; and,

(ii) equip the cleaner with equipment, such as a drying tunnel or rotating (tumbling) basket , sufficient to prevent cleaned parts from carrying out solvent liquid or vapor; and,

(iii) provide the following safety switches;

(a) a condenser flow switch and thermostate which shut off the pump heat if the condenser coolant is either not circulating or too warm; and,

(b) a spray safety switch which shuts off the spray pump or the conveyor if the vapor level drops more than 10 centimeters (4 inches); and,

(c) a vapor level control thermostat which shuts off the pump heat when the vapor level rises too high; and,

(iv) minimize openings during operation so that entrance and exits will silhouette workloads with an average clearance between the parts and the edge of the degreaser opening of less than 10 centimeters (4 inches) or less than 10 percent of the width of the opening; and,

(v) provide downtime covers for closing off the entrance and exit during shutdown hours; and,

(vi) not use workplace fans near the degreaser opening, nor provide exhaust ventilation exceeding 20 cubic meters per minute per square meter (65 cubic feet per minute per square foot) of degreaser opening, unless

necessary to meet OSHA requirements; and,

(vii) minimize carryout emissions by;

(a) racking parts for best drainage; and,

(b) maintaining the vertical conveyor speed at less than 3.3 meters per minute (11 feet per minute); and,

(viii) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, such that greater than 20 percent of the waste solvent (by weight) can evaporate into the atmosphere; and,

(ix) repair solvent leaks immediately, or shutdown the degreaser; and,

(x) not operate the cleaner so as to allow water to be visually detectable in solvent exiting the water separator; and,

(xi) place downtime covers over entrances and exits of conveyorized degreasers immediately after the conveyors and exhausts are shutdown and not remove them until just before start-up.

Part G. Cutback Asphalt

1. For the purpose of this section "cutback asphalt" means asphalt cement which has been liquefied by blending with petroleum solvents (diluents).

2. No person may cause, allow or permit the use or application of cutback asphalt except as follows:

a. used solely as a penetrating prime coat,

b. long-life asphalt mix stockpile storage,

c. other use or application during the months of January, February, and December.

Section III - Compliance Schedule

Part A. Process and Emission Control Equipment Installations

1. Except as provided under Part C and Part D, below, the owner or operator of a volatile organic compound emission source proposing to install and operate volatile organic compound emission control equipment and/or replacement process equipment and/or modification of existing process equipment to comply with Section II, above, shall adhere to the increments of progress contained in the following schedule:

a. Construction permit applications for the emission control system and/or process equipment and/or modification of existing process equipment must be submitted before April 1, 1980.

b. Contracts for the emission control systems and/or process equipment and/or modification of existing process equipment must be awarded or orders must be issued for purchase of component parts to accomplish emission control before September 1, 1980.

c. Initiation of on-site construction or installation of the emission control and/or process equipment and/or modification of existing process equipment must begin before November 1, 1980.

d. On-site construction of installation of the emission control and/or process equipment and/or modification of existing process equipment must be completed before July 1, 1981.

e. Final compliance shall be achieved before October 1, 1981.

f. Any owner or operator of a stationary emission source subject to the compliance schedule of this section shall certify to the Department within 5 days after the deadline for each increment of progress whether the required increment of progress has been met.

Part B. Low Solvent Content Coating

1. Except as provided under Part D or Part E, below, or under paragraph 2, below, the owner or operator of a volatile organic compound emission source proposing to employ low solvent content coating technology to comply with Section II, above, shall adhere to the increments of progress contained in the following schedule;

a. Construction permit applications for the application of low solvent content coating technology must be submitted before January 1, 1980.

b. Research and development of low solvent content coating must be completed before July 1, 1980.

c. Evaluation of product quality and commercial acceptance must be completed before January 1, 1981.

d. Purchase orders must be issued for low solvent content coatings and process modifications before March 1, 1981.

e. Initiation of process modifications must begin before May 1, 1981.

f. Process modifications must be completed and use of low solvent content coatings must begin before October 1, 1981.

g. Final compliance, shall be achieved before December 1, 1981.

h. Any owner or operator of a stationary source subject to the compliance schedule of this section shall certify to the Department within 5 days after the deadline for each increment of progress, whether the required increment of progress has been met.

2. Where the Department determines that low solvent content coating technology has been sufficiently researched and developed for a particular application, the owner or operator of a volatile organic compound emission source proposing to comply with Section II, above, through application of low solvent content coatings shall adhere to the increments of progress

contained in the following schedule;

a. Final plans for the application of low solvent content coating technology must be submitted before January 1, 1980.

b. Evaluation of product quality and commercial acceptance must be completed before July 1, 1980.

c. Purchase orders must be issued for low solvent content coatings and process modifications before September 1, 1980.

d. Initiation of process modifications must begin before November 1, 1980.

e. Process modifications must be completed and use of low solvent content coatings must begin before April 1, 1981.

f. Final compliance, shall be achieved before June 1, 1981.

g. Any owner or operator of a stationary source subject to the compliance schedule of this section shall certify to the Department within 5 days after the deadline for each increment of progress, whether the required increment of progress has been met.

Part C. Alternate Compliance Schedule

1. Nothing in this Section shall prevent the Department from promulgating a separate schedule for any source if it finds that the application of a compliance schedule in Part A or Part B, above, would not be technologically feasible.

2. Nothing in this Section shall prevent the owner or operator of a volatile organic compound source from submitting to the Department a proposed alternative compliance schedule provided:

a. the proposed alternative compliance schedule is submitted before January 1, 1980; and,

b. the final control plans for achieving compliance with Section II, above, are submitted simultaneously; and,

c. the alternative compliance schedule contains the same increments of progress as the schedule for which it is proposed; and,

d. sufficient documentation and certification from appropriate suppliers, contractors, manufactureres, or fabricators is submitted by the owner or operator of the volatile organic compound source to justify the dates proposed for the increments of progress.

3. All alternative compliance schedules proposed or promulgated under this section shall provide for compliance of the volatile organic compound emission source with Section II, above, as expeditiously as practicable but not later than December 31, 1982.

4. Any schedule approved under this section will automatically terminate if the source does not meet the increments of progress stipulated.

Part D. Exception

Parts A through D, above, will not apply to sources which are in compliance with Section II, above, before the effective date of this Standard and which have determined and certified compliance to the satisfaction of the Department before November 1, 1979.

Regulation 62.6

Control of Fugitive Particulate Matter

Section I - Control of Fugitive Particulate Matter in Non-Attainment Areas

(a) No person shall cause or permit any fugitive particulate matter to go beyond property boundaries below a height of 150 feet. Necessary precautions shall be taken to prevent such occurrences and be in accordance with good dust control practices as determined by the Department taking into consideration economic reasonableness, the seriousness of the dust conditions, and anticipated benefits, and may include but not be limited to the following:

1. Use, where possible, of water or chemicals for control of dust in demolition or construction operations, the grading of roads, or the clearing of land;

2. Application of asphalt (cut back asphalt is prohibited), water, or suitable chemicals on dirt roads, material stockpiles, and other surfaces which can give rise to airborne dust;

3. Installation and use of hoods, scrubbers, fabric filters or other dust cleaning devices where feasible and effective to capture and contain fugitive particulate matter while handling dusty materials. Adequate containment methods shall be employed during sandblasting or other similar operations;

4. The paving of roadways and the prompt removal of earth or other materials from paved streets that have been deposited by vehicu-

lar traffic, earth moving equipment, water erosion or other means;

5. Stabilization of long term storage piles by vegetation or appropriate chemicals and reclamation of mined areas;

6. Modifying the process or materials handling system;

7. Use of a slurry to move material if feasible;

8. Use of traveling booms, telescopic chutes, rotary stackers, adequate shrouding of openings in containers to be filled;

9. Avoid use of front end loader in handling dry dusty materials unless there is no other reasonable option;

10. Impose strict slow speed limits for vehicular traffic on plant property or construction/destruction sites;

11. Ensure proper loading of trucks, trailers, front end loaders, etc., to prevent spillage on paved roadways.

(b) No visible dust in excess of 10% opacity will be allowed to come from transfer points of any conveyor system for raw material or finished product unless the source/facility owner can demonstrate to the satisfaction of the Department that such control is not feasible.

(c) No new source/facility will be granted a permit to construct in a non-attainment area for primary standards if any part of materials handling of dry and dusty material is to be done with a front end loader, dump truck, or similar type handling which permits excessive dust to escape to the ambient air.

Section II - Control of Fugitive Particulate Matter in Problem Areas

(a) For the purpose of this section, problem areas are defined as areas in which ambient levels of particulate matter are at or near primary standards; areas where an undesirable level of air pollution exists; areas in which excessive levels of fugitive particulate matter results in complaints from the general public; areas in which fugitive particulate matter is determined to be impacting upon a non-attainment area.

(b) No person shall cause or permit any fugitive particulate matter that can reasonably be controlled to escape into the ambient air. Such reasonable control shall be in accordance with recognized and generally accepted methods as determined by the Department and may include, but not be limited to, the following:

1. Restrictions as applicable and contained in Section II;

2. Enclosure of any dust generating process to prevent fugitive emissions/dust; and

3. Modification or reduction of materials handling to minimize the generation of dust.

Section III - Control of Fugitive Particulate Matter Statewide

(a) Emissions of fugitive particulate matter shall be controlled in such a manner and to the degree that it does not create an undesirable level of air pollution.

(b) Restrictions and requirements may be contained in operating permits on a case-by-case basis that are deemed appropriate and necessary

to control fugitive particulate matter in accordance with reasonably available control technology.

(c) No source/facility shall use any method of materials handling which will generate fugitive particulate matter that is not fully described in the permit application.

(d) Volatile organic compounds shall not be used for dust control purposes.